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PATENT

Docket No: ST03005CIP (SIRF.54USCIP1)

Serial No.: 10/700,821

REMARKS

STATUS SUMMARY

Claims 1-41 are pending in the present application. Claim 19 has been amended. No

claims have been canceled. Applicants have considered the above-identified Office Action and

cited references, and reply as set forth below to place the application in condition for allowance.

CLAIM OBJECTION

Claim 19 is objected to under 37 CFR 1.75(c) as being of improper dependent form for

failing to further limit the subject matter of a previous claim. The Examiner states that claim 19

depends from claim 14, which recites the same limitations. In response, Applicants have

amended claim 19 to depend directly from independent claim 12. Applicants respectfully submit

that the objection to claim 19 has been overcome, and respectfully requests that the objection be

withdrawn.

CLAIM REJECTION - 35 U.S.C. § 102

Claims 1, 3, 8, 9, 10, 11, 12, 13, 14, 31, 33, 38, 39, 40 and 41 are rejected under 35

U.S.C. § 102(b) as being unpatentable over Eschenbach (U.S. Patent No. 6,211,817). Applicants

respectfully traverse this rejection, in view of the discussion below.

As a general matter, Applicants' specification discusses almanacs and sub-almanacs as

follows:

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An almanac is a list of Kepler parameters, e.g., orbit and clock parameters, for all of the satellites operating in the GPS constellation. A sub-almanac contains only the orbit and clock parameters for one satellite.

Complete GPS almanac information is assembled from data broadcast by each satellite in a twelve-second message every thirty seconds, for a total time of twelve minutes. A sub-almanac can be retrieved by receiving any twelve-second message within the twelve minute broadcast. Each sub-almanac is identified by a unique sub-almanac identification.

Applicants' specification, p. 5, line 14 to p. 6, line 1. Moreover, Applicants' specification, at p. 8, lines 3-5, states the following: "Embodiments of the invention reduce the time to first fix (TTFF) for a GPS mobile station receiver while using minimal power, in part by using GPS sub-almanac data stored on, or sent to, the mobile station to calculate it own coarse position."

Eschenbach discusses the use of only almanac-based D-GPS corrections. Similar to Applicant's specification, Eschenbach notes that "[e]ach GPS satellite broadcasts the almanac data for all the satellites on a twelve and one-half minute cycle." Eschenbach fails to disclose or suggest the use of sub-almanac information as recited in the rejected claims.

Claim 1 recites "a mobile station using stored satellite sub-almanacs to acquire a plurality of satellites," "the mobile station using the satellite sub-almanacs to take measurements," and "the mobile station using the sub-almanacs to calculate a coarse position of the mobile station." For the reasons stated above, Eschenbach fails to disclose or suggest the use of sub-almanac information as recited in claim 1.

Claims 3 and 8 - 11 depend directly or indirectly from claim 1, and therefore are patentable for at least the same reasons as regards claim 1.

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Independent claim 12 recites "a memory that stores satellite sub-almanac data," and "a central processing unit (CPU) configured to calculate a coarse positions using the sub-almanac data." Claim 12 is therefore patentable for at least the same reasons as regards claim 1.

Claims 13 and 14 depend directly or indirectly from claim 12, and therefore are patentable for at least the same reasons as regards claim 12.

Independent claim 31 recites "using stored satellite sub-almanacs to acquire a plurality of satellites," "using the satellite sub-almanacs to take measurements," and "using the sub-almanacs to calculate a coarse position of a mobile station." Claim 31 is therefore patentable for at least the same reasons as regards claim 1.

Claims 33 and 38 – 41 depend directly or indirectly from claim 31, and therefore are patentable for at least the same reasons as regards claim 31.

In view of the foregoing, Applicants respectfully submit that claims 1, 3, 8, 9, 10, 11, 12, 13, 14, 31, 33, 38, 39, 40 and 41 are patentable over Eschenbach. Therefore, Applicants respectfully request that this rejection be withdrawn.

CLAIM REJECTIONS - 35 U.S.C. § 103

Claims 2 and 32 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Eschenbach in view of Fuchs et al. (U.S. Patent No. 6,453,237). Applicants respectfully traverse this rejection. Claim 2 depends from claim 1, and claim 32 depends from independent claim 31. The patentability of claims 1 and 31 over Eschenbach is discussed above. Fuchs et al. fails to cure the deficiencies of Eschenbach, for the same reasons as discussed above in connection with the rejection under § 102 based on Eschenbach. Therefore, Applicants respectfully submit that

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claims 2 and 31 are patentable over the combination of Eschenbach and Fuchs et al., and respectfully requests that this rejection be withdrawn.

Claims 4, 6, 15, 17, 34 and 36 are rejected under 35 U.S.C. § 103(a) as being

unpatentable over Eschenbach in view of Jandrell (U.S. Patent App. Pub. No. 2003/0016170).

Applicants respectfully traverse this rejection. Claims 4 and 6 depend from claim 1, claims 15

and 17 depend directly or indirectly from independent claim 12, and claims 34 and 36 depend

from claim 31. The patentability of claims 1, 12 and 31 over Eschenbach is discussed above.

Jandrell fails to cure the deficiencies of Eschenbach, for the same reasons as discussed above in

connection with the rejection under § 102 based on Eschenbach. Therefore, Applicants

respectfully submit that claims 4, 6, 15, 17, 34 and 36 are patentable over the combination of

Eschenbach and Jandrell, and respectfully requests that this rejection be withdrawn.

Claims 7, 18 and 37 are rejected under 35 U.S.C. § 103(a) as being unpatentable over

Eschenbach in view of Jandrell, and further in view of Dooley et al. (U.S. Patent App. Pub. No.

2003/0212487). Applicants respectfully traverse this rejection. Claim 7 depends indirectly from

claim 1, claim 18 depends indirectly from independent claim 12, and claim 37 depends indirectly

from independent claim 31. The patentability of claims 1, 12 and 31 over Eschenbach is

discussed above. Jandrell and Dooley et al. fail to cure the deficiencies of Eschenbach, for the

same reasons as discussed above in connection with the rejection under § 102 based on

Eschenbach. Therefore, Applicants respectfully submit that claims 7, 18 and 37 are patentable

over the combination of Eschenbach, Jandrell and Dooley et al., and respectfully requests that

this rejection be withdrawn.

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CLAIM REJECTIONS - DOUBLE PATENTING

Several rejections are made under the judicially-created doctrine of obviousness-type double patenting. A terminal disclaimer in compliance with 37 CFR 1.130(b) is being submitted with this Amendment. Accordingly, Applicants respectfully submit that all double-patenting rejections have been overcome, and requests that these rejections now be withdrawn.

Applicants note that claims 5, 16, 19-30, and 35 are rejected only under the doctrine of double-patenting. Because the double-patenting rejection has been overcome, Applicants respectfully submit that claims 5, 16, 19-30, and 35 are now in condition for allowance.

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CONCLUSION

In light of the above remarks, it is respectfully submitted that the present application is now in proper condition for allowance, and an early notice to such effect is earnestly solicited.

If any small matter should remain outstanding after the Patent Examiner has had an opportunity to review the above Remarks, the Patent Examiner is respectfully requested to telephone the undersigned patent attorney in order to resolve these matters and avoid the issuance of another Office Action.

Respectfully submitted,

THE ECLIPSE

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